

INTRODUCTION

The new GENLINX™ II GS9035A Serial Digital Reclocker is a high performance, serial digital reclocker offering clock and data recovery for all high-speed serial digital interface applications. It can operate in either automatic or manual modes making it ideal for both multi-rate serial data protocols (auto rate selection for five SMPTE data rates including: 143, 177, 270, 360 and 540Mb/s) and single rate data systems. The GS9035A is packaged as a 28-pin PLCC and is a drop-in compatible replacement for the GS9035.

The new GS9035A is based on its predecessor - the GS9035 - and subsequently shares common device features including:

- Large input jitter tolerance,
- A single external VCO resistor for operation with 5 SMPTE data rates
- Low jitter and low power consumption, and
- A common PCB footprint

It is Gennum's intention to transition to the new GS9035A over the next 6-month period, and recommends that customers begin qualifying the new device in both new and existing applications. Pre-production samples of the GS9035A are now available.

OPTIMIZING GS9035A PERFORMANCE

For optimal device performance, Gennum recommends the implementation of new loop filter component values as outlined in the Table 1.

Table 1: Loop Filter Component Values

COMPONENT	CURRENT VALUE	GS9035A OPTIMAL VALUE
R_{LF}	1k Ω	1.8k Ω
C_{LF1}	15nF	15nF
C_{LF2}	15pF	3.3pF

Further device information and performance can be reviewed by referencing the updated GS9035A Preliminary Data Sheet or by visiting the web-site at www.gennum.com.